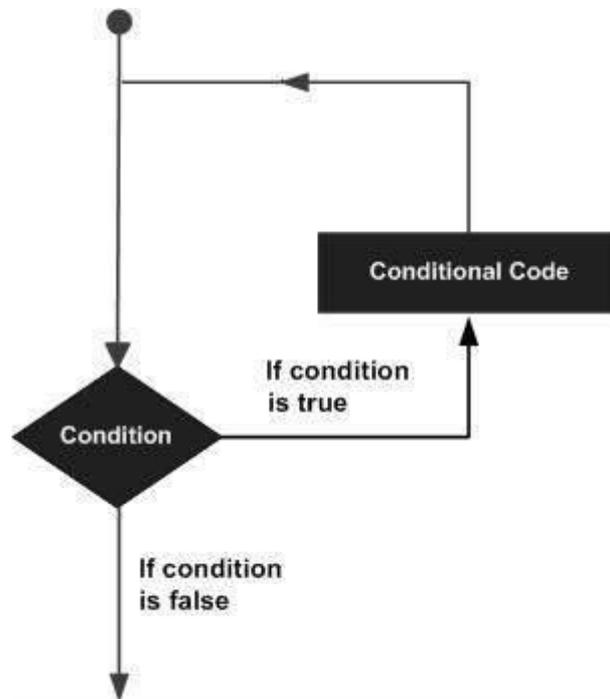


## Loops (Repetition) Structures

There may be a situation when you need to execute a block of code several number of times. In general, statements are executed sequentially: The first statement in a function is executed first, followed by the second, and so on.

Programming languages provide various control structures that allow for more complicated execution paths.

A loop statement allows us to execute a statement or group of statements multiple times and following is the general form of a loop statement in most of the programming languages.



VB.Net provides following types of loops to handle looping requirements.

- **For-Next**
- **Do –loop While**
- **Do –loop until**
- **While –End While**
- **Nested loops**



For- Next	
<b>Description</b>	It repeats a group of statements a specified number of times and a loop index counts the number of loop iterations as the loop executes.
<b>syntax</b>	<b>For</b> counter = Start <b>To</b> End <b>Step</b> [Increment] Statements <b>Next</b> [counter]
<b>Example</b>	<pre>Dim i As Integer     For i = 1 To 10 Step 2         ListBox1.Items.Add(i)     Next i</pre>
Do -While	
<b>Description</b>	It repeats the enclosed block of statements while a Boolean condition is True. It could be terminated at any time with the Exit Do statement.
<b>syntax</b>	<b>Do</b> Statement <b>Loop While</b> (condition)
<b>Example</b>	<pre>Dim i As Integer = 1     Do         ListBox1.Items.Add(i)         i = i + 1     Loop While (i &lt;= 10)</pre>
While... End While	
<b>Description</b>	It executes a series of statements as long as a given condition is True.
<b>syntax</b>	<b>While</b> Statement <b>End While</b> (condition)
<b>Example</b>	<pre>Dim i As Integer = 1     While (i &lt;= 10)         ListBox1.Items.Add(i)         i = i + 1     End While</pre>
Nested loops	
<b>Example</b>	You can use one or more loops inside any another loop. <pre>Dim i As Integer For i = 1 To 5     For j = 1 To 3         ListBox1.Items.Add(i)         ListBox2.Items.Add(j)     Next j Next i</pre>